The Entozoa are illustrated by the *Coenurus* of the rabbit's muscle, which is regarded as probably of "the same species as the one individuals from which are, when in the cystic state, lodged usually in the brain of the sheep, and are the cause of the disease commonly known as the 'sturdy,' 'gid,' 'staggers,' or 'turnsick'" (p. 136). So that *C. cuniculi* is identical with *C. cerebralis.* There are also some diagrams of parts of Tænia in the cestoid state (pp. 246-252), from Leuckart and Van Beneden, with descriptions.

Several new terms are introduced in this work, and most of them are likely to be useful additions to nomenclature. Among them are the words "proctuchous" and "aproctous," which we have only seen before used to distinguish the *Turbellaria* with an anus from those without one. Would it not be possible to substitute *Brachionopoda* for the barbarous word "Brachiopoda," which is moreover too near to "Branchiopoda?" Several terms in common use are given by Dr. Rolleston in an improved form; and we think him quite justified in substituting *Myriopodia* for Myriapoda, *Annulata* for Annelida (which is only a pseudo-classical form of "Les Annelides," the name invented by Lamarck), and *Hedriophthalmata* for Edriophthalmata—though if this last change be made, it will be as well to write "*Hedræophthalma,*" since the root must be ἑδραῖος, not the doubtful diminutive ἕδριον, and the analogy of μονόφθαλμος, μυριόφθαλμος points out the true form of the termination. In the same way the word *Echinodermata* (which was first correctly applied by Stein to the *shells* of Echini) and *Pachydermata* ought to be written Echinoderma and Pachyderma, especially as the latter form is actually used by Aristotle. But there are probably too many words of this termination for the change to be easily accomplished. Useless synonyms, however, ought undoubtedly to be abandoned; such troublesome words, for instance, as Actinozoa, Ascidioidea, and Bryozoa, ought to yield to *Anthozoa, Tunicata,* and *Polyzoa,* for reasons of convenience, euphony, and priority.

The student will find it useful to note the following errata, in addition to those indicated in the book itself.

P. xiv. *monophydont* for *monophyodont* and *Montremata* for *Monotremata;* p. li., *furculum* for *furcula*, repeated p. 21 *bis* and p. 22; p. ciii., *classes Brachiopoda* for *class Brachiopoda;* p. 21, *obtusator* for *obturator;* p. 25, *Wirbel thiere* for *Wirbelthiere;* p. 35, *Körperban* for *Körperbau;* p. 78, *differs from the imago* for *differs from the larva;* p. 136, and again pp. 241 and 251, *Caenurus* for *Coenurus;* p. 160, *coenosare* for *coenosarc;* p. 224, *two sets of them and two rays respectively* for *two sets of three, &c.;* p. 252, *Thudichen* for *Thudichum;* and, in the index, *Vesicular* should read *Vesiculae*, while the reference to Prof. Turner will be found at p. 1. of the second part instead of p. i. of the Introduction. Lastly, at p. 251, line 10 from the bottom of the page, the figure 6 is misprinted for the letter *b*.

It is much to be hoped that a second edition of this thorough and painstaking work will soon be called for; since nothing would better prove the increased number of serious zoologists in this country. Should its learned author then see fit to unite the second and third parts together, and to add somewhat full directions for dissection, I venture to think that the book will be made even more useful than it already is.

P. H. Pye-Smith

NEW ATLASES

The Complete Atlas of Modern, Classical, and Celestial Maps, together with Plans of the principal Cities of the World, constructed and engraved on steel under the superintendence of the Society for the Diffusion of Useful Knowledge, and including all the recent geographical discoveries, compiled from the latest and most authentic sources. Accompanied by alphabetical indexes to the modern and classical maps. 218 maps and plans.

The Family Atlas, containing 80 Maps, constructed by eminent Geographers, and engraved on steel under the superintendence of the Society for the Diffusion of Useful Knowledge, including the Geological Map of England and Wales, by Sir R. I. Murchison, F.R.S.; the Star Maps, by Sir John Lubbock, Bart., F.R.S.; and the Plans of London and Paris, with the new discoveries and other improvements to the latest date, and an Alphabetical Index.

The Cyclopædian, or Atlas of General Maps, with an Index of the Principal Places in the World. 39 maps.

(London: Edward Stanford, 6 & 7, Charing Cross. 1870.)

At the present time not a week passes which does not more and more enforce the necessity of everyone of us having an atlas of some sort or another to refer to, and, in fact, it may be said that in these days of rapid locomotion and intercommunication with every part of the planet, an atlas is the corner-stone of a library, even if that library otherwise consist merely of a Dictionary and a Blue Book, Imperial Calendar, or Post-office Directory.

Take the last six months. We have all of us been burning to know the ins and outs of that part of Africa, so far as they have been mapped, which we hope that Livingstone is still exploring for us. The Suez Canal has not only, to the amazement of school boys, made Africa an island as well as a continent; but children of a larger growth have had to talk about Port Saïd, the Bitter Lakes, and the Sweet Water Canal, thereby opening up a new region of minute geography; while the Pacific Railroad, now a *fait accompli*, has carried us at once into a part of the world about which the majority of us had thought but little; and we might easily go on multiplying other instances.

Geography, in fact, is now not only "one of the eyes of history," but it is the "eye" of every-day life among all Anglo-Saxon communities; and from this point of view it is satisfactory to see our foremost geographers and purveyors of maps keeping pace with the times, including "all the recent discoveries" in their publications, and bringing this very important information fairly within the reach of all. Let us add, that it is also satisfactory to see them little by little approaching the German standard of map-making, which, to speak candidly, they have not all reached.

We shall clear the ground for what we have to say of the atlases now under notice, if we state that the maps in all of them belong to the series brought out some time ago by the Society for the Diffusion of Useful Knowledge; that the two first on our list are of the size of the maps, and are for the library, while the third contains the maps folded, and will suit either a school-boy or a family of small geographical requirements. The Complete Atlas differs from the Family one in having classical maps and a large number of plans of cities; the modern maps being pretty much the same in both; both also contain maps of the stars. Sir Roderick Murchison's geological map of England and Wales, however, is to be found in the Family Atlas only. All of them contain a most valuable index of places, so that we have on the whole a very practical gradation to suit all requirements, the *quality* being the same but the *quantity* varying.

There is one very admirable point in the arrangement of the Complete Atlas which at the same time reminds us that it is not so complete as we are sure Mr. Stanford will make some edition of it in the more or less remote future. Side by side with the modern (politically divided) map we have the ancient (politically divided) map of the same area, and in this point the Complete Atlas will commend itself to all scholars; but we miss very much indeed the physical maps of the larger areas, and in the interests of physical geography we feel bound to insist strongly on this point, because we are convinced that the importance of such maps to those who want a large atlas is becoming so great that it will not be borne that they shall be relegated to a separate volume.

By many, and those especially who are content with the modern world, the Family Atlas will commend itself by its index-like arrangement, by which the names of all the maps are visible down the side, and the sides of the foremost maps being cut away, any map may be at once turned to.

This much premised, we may state that we have examined the maps and plans very carefully, and find them as a rule as good as any English maps extant, and honestly brought down to date. Mr. Stanford deserves great credit for the admirable and careful way in which this has been done, and we say this the more strongly because we know the immense labour and expense involved in altering map plates from time to time. Of course, in some cases, it has been simply impossible to alter the plates, the alterations have been too great. Take for instance the plans of New York, extending to Forty-second Street only, and Boston, in which the waste space shown in the map, west of the public garden, is now covered with houses. In other cases all the care has been displayed in the detail map, the general map having escaped revision, or *vice versa; e.g.*, in the map of British North America, Russian America is retained, while in the general map it is correctly omitted; in the general map of Canada and the United States the chief town of Iowa is shown as Iowa City, while, in the detail map, Des Moines is correctly given. We could have wished too to see Patagonia, a time-honoured name, divided, as it really is, between the Argentine Republic and Chili; and we have an idea, too, that by an Order in Council, or some such terrible enactment, the "improper" name of Van Dieman's Land has been altered to Tasmania! We notice these points, not as blemishes by any means, but as indications of a more or less minute revision which we are sure Mr. Stanford would have otherwise undertaken, of a collection of maps of which English geography may be proud.

OUR BOOK SHELF

Birds of Marlborough, being a Contribution to the Ornithology of the District. By Everard F. im Thurn. (12mo. pp. 117. Marlborough and London, 1870.)

THIS unpretending little book affords an additional piece of evidence, if more were needed, that science in some form or other is making its way into our schools. A few years ago it was well remarked by one who had given no small attention to the matter, that the relations of the universities and public schools, as regarded science, formed a "vicious circle"—on the one hand the public schools demurred to its encouragement because it did not "pay" their pupils when they reached the university, and on the other the universities hesitated about rewarding scientific studies because they were pursued by intellects comparatively inferior to those which were devoted to the older branches of learning. This state of things clearly admitted of a remedy; either great power of itself could make the first step; but it was certainly the duty of the universities to take the lead in moving. It must depend on them, and on them alone, to alter and improve the whole higher education of our countrymen, for the curriculum of any public school is almost exclusively prepared with reference to the requirements of the universities and the rewards for proficiency that they offer.* They have but to declare that their emoluments and privileges are accessible to excellence in every branch of human knowledge, instead of confining these encouragements to some very few alone, and leave the public schools to respond to the call. With skilful gardeners these nurseries will speedily grow the plants required; the germs are already there, and under the sunny smiles of pedagogic favour and the golden rain of prizes, vigorous saplings will be transplanted to the Groves of Academe, there to hold their heads as high as their rivals from the primæval forests of classics and mathematics, and (may we say?) to be finally of greater utility.

If Mr. im Thurn's book, as might be expected from the performance of so youthful an author, does not contain any addition to science, it will, of course, be interesting to Marlburians as the work of one who has just ceased from being a schoolboy; but its chief value lies in the fact of its indicating the presence of the promising germs we have mentioned above, of the excellent forcing pit found in the Marlborough College Natural History Society, and of the skilful gardener, Mr. T. A. Preston.

Gymnastics for Ladies. Madame Brenner.

ALTHOUGH many of our large towns are now provided with gymnasiums at which ladies' classes have been established, the subject is but little appreciated, especially, in some more important cases, among the ladies themselves. There can be no doubt that for growing girls a large airy room, provided with suitable apparatus, and where a loose easy dress is a necessary condition, must be advantageous, if the exercises performed are such as to induce emulation without over-exertion. When we consider at how much earlier an age "romping" is prohibited to girls than to boys, and how little there is in the routine of a girl's life to correspond to the cricket and rowing which form the best part of her brother's recreations, we think the fact offers a very probable explanation of the increasing languor and delicacy of the ladies of the period. Breadmaking and other manual duties are being superseded by reading and preparing for examinations, and we must, therefore, look to artificial means to preserve a just balance between mental and physical development.

Madame Brenner's book is little more than an advertisement of her class in Bruton Street, being a description of those exercises which she teaches, enlivened by rather severe criticisms of those which others teach. Still we hope her book will find many readers, as the graceful

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* See Rep. Brit. Assoc. Dundee, p. xliv.